ABSTRACT OF THE DISCLOSURE

A device of the present invention includes a generally tubular stent body with one or more external longitudinal projections. The stent is used for insertion into a vessel. These projections may extend from the distal end of the stent to the proximal end of the stent, or they may terminate at a location proximal to the distal end of the stent and/or distal to the proximal end of the stent. The projections act as rails to reduce a contact area between the stent and a vessel wall as well as act to focus and concentrate the radial forces. Preferably the distal end of each projection is tapered to facilitate crossing a tight undilated stenotic segment. When the stent is inserted into the vessel, it is expanded by balloon inflation, shape memory, self-expansion and, other means. The projections may be formed in the stent, added as separate elements and attached by suitable methods, or formed by crimping the stent with a suitable tool.